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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,597	01/18/2006	Declan Patrick Kelly	CN 020040	9072

24737 7590 03/10/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
CHOKSHI, PINKAL R	
ART UNIT	PAPER NUMBER
2425	
MAIL DATE	DELIVERY MODE
03/10/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/540,597	KELLY ET AL.	
	Examiner	Art Unit	
	PINKAL CHOKSHI	2425	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,6-10 and 13-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,6-10,13-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/12/2009 has been entered.

Response to Arguments

2. Applicant's arguments filed 1/12/2009 with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. See the new rejection below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1, 2, 8-10, 15-18, and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,556,546 B1 to Maeda et al (hereafter referenced as Maeda) in view of US Patent 6,886,178 B1 to Mao et al (hereafter referenced as Mao).

Regarding **claim 1,** "a digital broadcast method for supporting DVD recording" reads on the method for transmission and reception of audio/video data stream which is recorded on DVD media (abstract) disclosed by Maeda and represented in Fig. 1.

As to "a method comprising: providing a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs" Maeda discloses (col.2, lines 42-50) that it presents audio/video data of DVD along with procedure and selection information data for playing back audio/video data.

As to "packing said video elementary stream, said audio elementary stream and said navigation data stream into a transport stream" Maeda discloses (col.2, lines 42-50) that the audio/video data and procedure information data are multiplexed into a packet and transmitted to a recording media.

As to "wherein said navigation data stream includes at least one of, in-stream data and out-stream data, data for searching, data for reproduction control, and data for generating menus" Maeda discloses (col.2, lines 40-50) that the transmitting device transmits digital audio/video data along with management information data (navigation data) for playing back digital audio/video data as represented in Fig. 1 (elements 1, 2). Maeda further discloses (abstract) that the management information is used in playback device so the playback device can make use of various playback functions, such as playback of audio/video, a

change of playback procedure (forward/rewind/pause) and a selection of playback information (menu).

Maeda meets all the limitations of the claim except "wherein the navigation data also includes data for reproduction control and/or hyperlink data to enable users to visit related websites or obtain viewing authorization information." However, Mao discloses (abstract) that the MPEG-2 data transmitted to receiver includes audio/video data as well as Internet HTML web page data multiplexed within the MPEG-2 stream. Mao further discloses (col.3, lines 20-37 and col.8, lines 30-32) that the head-end server broadcasts MPEG-2 stream that also includes web page information, which is related to the contents of the broadcast video program viewer's watching. As to "broadcasting said transport stream" Mao discloses (col.6, lines 15-25) that the head-end broadcasts MPEG-2 transport stream to set-top box as represented in Figs. 1 and 2. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Maeda's system by using web-page data to visit related websites and transmit data using transport stream as taught by Mao in order for the user to switch back and forth between Internet content and broadcast content and to reproduce DVD quality data at the receiving device using MPEG-2 stream included in transport stream (col.1, lines 26-27).

Regarding **claim 2,** Maeda meets all the limitations of the claim except "the method wherein, said packing is carried out according to a digital broadcast

standard, and said navigation data stream is loaded into the transport stream as a private stream of the digital broadcast standard." However, Mao discloses (col.6, lines 60-64) that the head-end inserts navigation data using industry standard of the MPEG-2 protocol. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to use broadcast/MPEG standard to transmit streams as taught by Mao in order to reproduce standard DVD information with ease.

Regarding **claim 8,** "a method for receiving and recording DVD digital broadcast" reads on the method for transmission and reception of audio/video data stream which is recorded on DVD media (abstract) disclosed by Maeda and represented in Fig. 1.

As to "a method comprising: acquiring a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs from the transport stream" Maeda discloses (col.2, lines 42-46) that it presents audio/video data along with procedure and selection information data for playing back audio/video data.

As to "synthesizing said video elementary stream, audio elementary stream and navigation data stream into a DVD program stream" Maeda discloses (col.2, lines 42-50) that the audio/video data and procedure information data are multiplexed into a packet and transmitted to a recording media.

As to "wherein the navigation data includes at least one of, in-stream data and out-stream data, data for searching, data for reproduction control, and data for generating menus" Maeda discloses (col.2, lines 40-50) that the transmitting device transmits digital audio/video data along with management information data (navigation data) for playing back digital audio/video data as represented in Fig. 1 (elements 1, 2). Maeda further discloses (abstract) that the management information is used in playback device so the playback device can make use of various playback functions, such as playback of audio/video, a change of playback procedure (forward/rewind/pause) and a selection of playback information (menu).

As to "recording the DVD program stream onto a user's recording medium in a DVD format" Maeda discloses (col.2, lines 8-13) that the MPEG2 digital video data, audio data and procedure information that met the DVD standard, are recorded in the device.

Maeda meets all the limitations of the claim except "wherein the navigation data also includes data for reproduction control and/or hyperlink data to enable users to visit related websites or obtain viewing authorization information." However, Mao discloses (abstract) that the MPEG-2 data transmitted to receiver includes audio/video data as well as Internet HTML web page data multiplexed within the MPEG-2 stream. Mao further discloses (col.3, lines 20-37 and col.8, lines 30-32) that the head-end server broadcasts MPEG-2 stream that also includes web page information, which is related to the contents of the broadcast

video program viewer's watching. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Maeda's system by using web-page data to visit related websites and transmit data using transport stream as taught by Mao in order for the user to switch back and forth between Internet content and broadcast content and to reproduce DVD quality data at the receiving device using MPEG-2 stream included in transport stream (col.1, lines 26-27).

Regarding **claim 9,** Maeda meets all the limitations of the claim except "the method, wherein the transport stream complies with a digital broadcast standard, the navigation data stream is loaded into the transport stream as a private data stream of the digital broadcast standard." However, Mao discloses (col.6, lines 60-64) that the head-end inserts navigation data using industry standard of the MPEG-2 protocol. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to use broadcast/MPEG standard to transmit streams as taught by Mao in order to reproduce standard DVD information with ease.

Regarding **claim 10,** "the method wherein synthesizing includes: separating the navigation data into the in-stream data and the out-stream data" Maeda discloses (col.3, lines 4-6) that the audio/video data and management information are separated from the received packet stream.

As to "synthesizing the in-stream data, the video elementary stream and the audio elementary stream into the DVD program stream and caching the out-stream data" Maeda discloses (col.2, lines 42-50) that the audio/video data are multiplexed into a packet along with procedure information which is stored on the recording medium. Maeda further discloses (col.12, lines 11-16) that the device stored playback management information issued from the data separating device.

As to "said recording includes: recording the out-stream data onto said recording medium" Maeda discloses (col.2, lines 8-13) that the procedure information is being recorded along with MPEG2 audio/video data on the recording device.

Regarding **claim 15,** "a digital broadcast system for supporting user DVD recording" reads on the method for transmission and reception of audio/video data stream which is recorded on DVD media (abstract) disclosed by Maeda and represented in Fig. 1.

As to "a system comprising: program source means, for generating a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs" Maeda discloses (col.2, lines 8-13, 42-46) that the system presents MPEG2 audio/video data with procedure and selection information data for playing back audio/video data.

As to "wherein the navigation data includes at least one of, in-stream data and out-stream data, data for searching, data for reproduction control, and data for generating menus" Maeda discloses (col.2, lines 40-50) that the transmitting device transmits digital audio/video data along with management information data (navigation data) for playing back digital audio/video data as represented in Fig. 1 (elements 1, 2). Maeda further discloses (abstract) that the management information is used in playback device so the playback device can make use of various playback functions, such as playback of audio/video, a change of playback procedure (forward/rewind/pause) and a selection of playback information (menu).

As to "digital front end means, packing said video elementary stream, said audio elementary stream and said navigation data stream from said program source means into a transport stream" Maeda discloses (col.2, lines 42-50) that the audio/video data and procedure information data are multiplexed into a packet and transmitted to a recording media.

Maeda meets all the limitations of the claim except "wherein the navigation data also includes data for reproduction control and/or hyperlink data to enable users to visit related websites or obtain viewing authorization information." However, Mao discloses (abstract) that the MPEG-2 data transmitted to receiver includes audio/video data as well as Internet HTML web page data multiplexed within the MPEG-2 stream. Mao further discloses (col.3, lines 20-37 and col.8, lines 30-32) that the head-end server broadcasts MPEG-2 stream that also

includes web page information, which is related to the contents of the broadcast video program viewer's watching. As to "outputting the transport stream to a broadcast network for broadcasting" Mao discloses (col.6, lines 15-25) that the head-end broadcasts MPEG-2 transport stream to set-top box as represented in Figs. 1 and 2. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Maeda's system by using web-page data to visit related websites and transmit data using transport stream as taught by Mao in order for the user to switch back and forth between Internet content and broadcast content and to reproduce DVD quality data at the receiving device using MPEG-2 stream included in transport stream (col.1, lines 26-27).

Regarding **claim 16,** Maeda meets all the limitations of the claim except "the system, wherein said digital front end means packs said video elementary stream, said audio elementary stream and said navigation data stream into said transport stream according to a digital broadcast standard, wherein said navigation data stream is loaded into said transport stream as a private stream of the digital broadcast standard." However, Mao discloses (col.6, lines 60-64) that the head-end inserts navigation data using industry standard of the MPEG-2 protocol. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to use broadcast/MPEG standard to transmit

streams as taught by Mao in order to reproduce standard DVD information with ease.

Regarding **claim 17,** "the system, further including a plurality of receiving means, wherein at least one of them has a DVD recording function" Maeda discloses (col.2, lines 46-50) that the audio/video data received are recorded in DVD recording medium.

Regarding **claim 18,** "a device for receiving and recording DVD digital broadcast" reads on the method for transmission and reception of audio/video data stream which is recorded on DVD media (abstract) disclosed by Maeda and represented in Fig. 1.

As to "comprising: acquiring means, acquiring a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs from said transport stream" Maeda discloses (col.2, lines 42-46) that it presents audio/video data along with procedure and selection information data for playing back audio/video data.

As to "wherein the navigation data includes at least one of, in-stream data and out-stream data, data for searching, data for reproduction control, and data for generating menus" Maeda discloses (col.2, lines 40-50) that the transmitting device transmits digital audio/video data along with management information data (navigation data) for playing back digital audio/video data as represented in

Fig. 1 (elements 1, 2). Maeda further discloses (abstract) that the management information is used in playback device so the playback device can make use of various playback functions, such as playback of audio/video, a change of playback procedure (forward/rewind/pause) and a selection of playback information (menu).

As to "synthesizing means, synthesizing said video elementary stream, said audio elementary stream and said navigation data stream into a DVD program stream" Maeda discloses (col.2, lines 42-50) that the audio/video data and procedure information data are multiplexed into a packet and transmitted to a recording media.

As to "DVD producing and recording means, recording the DVD program stream onto a user's recording medium in a DVD format" Maeda discloses (col.2, lines 8-13) that the MPEG2 digital video data, audio data and procedure information that met the DVD standard, are recorded in the device.

Maeda meets all the limitations of the claim except "wherein the navigation data also includes data for reproduction control and/or hyperlink data to enable users to visit related websites or obtain viewing authorization information." However, Mao discloses (abstract) that the MPEG-2 data transmitted to receiver includes audio/video data as well as Internet HTML web page data multiplexed within the MPEG-2 stream. Mao further discloses (col.3, lines 20-37 and col.8, lines 30-32) that the head-end server broadcasts MPEG-2 stream that also includes web page information, which is related to the contents of the broadcast

video program viewer's watching. As to "receiving means, receiving a broadcast transport stream" Mao discloses (col.6, lines 15-25) that the head-end broadcasts MPEG-2 transport stream to set-top box as represented in Figs. 1 and 2. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Maeda's system by using web-page data to visit related websites and transmit data using transport stream as taught by Mao in order for the user to switch back and forth between Internet content and broadcast content and to reproduce DVD quality data at the receiving device using MPEG-2 stream included in transport stream (col.1, lines 26-27).

Regarding **claim 20,** "the device wherein the device further includes: separating means, receiving the navigation data stream generated by the navigation data decoder, separating the navigation data stream into the in-stream data and out-stream data and outputting the in-stream data to the synthesizing means and outputting the out-stream data to a buffer" Maeda discloses (col.3, lines 4-6) that the audio/video data and management information are separated from the received packet stream. Maeda further discloses (col.12, lines 11-16) that the device stored playback management information issued from the data separating device.

As to "synthesizing the in-stream data from the separating means, video elementary stream from the video decoder and the audio elementary stream from the audio decoder into the DVD program stream by the synthesizing means"

Maeda discloses (col.2, lines 42-50) that the audio/video data are multiplexed into a packet.

As to "recording the synthesized DVD program stream and said out-stream data onto the recording medium in the DVD format by the DVD producing and recording means" Maeda discloses (col.2, lines 8-13) that the MPEG2 digital video data, audio data and procedure information that met the DVD standard, are recorded in the device.

5. **Claims 6, 7, 13 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda in view of Mao as applied to claims 1 and 8 above, and further in view of US Patent 7,043,484 B2 to Rotem et al (hereafter referenced as Rotem).

Regarding **claim 6,** combination of Maeda and Mao meets all the limitations of the claim except "the method wherein said in-stream data includes data for connecting networks." However, Rotem discloses (col.7, line 59-col.8, line 5) that the media server receives DVD images and titles from a plurality of media sources as represented in Fig. 2. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to connect server with multiple media sources/networks as taught by Rotem in order to have more selection of DVD title records (col.3, lines 52-53).

Regarding **claim 7,** combination of Maeda and Mao meets all the limitations of the claim except "the method wherein the in-stream data includes video and/or audio data selected by a broadcaster." However, Rotem discloses (col.8, lines 6-10) that based on the request received; server selects and produces an audio/video DVD image from database. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to connect server with multiple media sources/networks as taught by Rotem in order to have more selection of DVD title records (col.3, lines 52-53).

Regarding **claim 13,** combination of Maeda and Mao meets all the limitations of the claim except "the method wherein said in-stream data includes data for connecting networks." However, Rotem discloses (col.7, line 59-col.8, line 5) that the media server receives DVD images and titles from a plurality of media sources as represented in Fig. 2. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to connect server with multiple media sources/networks as taught by Rotem in order to have more selection of DVD title records (col.3, lines 52-53).

Regarding **claim 14,** combination of Maeda and Mao meets all the limitations of the claim except "the method wherein said in-stream data includes video and/or audio data selected by a broadcaster." However, Rotem discloses (col.8, lines 6-10) that based on the request received; server selects and

produces a audio/video DVD image from database. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to connect server with multiple media sources/networks as taught by Rotem in order to have more selection of DVD title records (col.3, lines 52-53).

6. **Claim 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda in view of Mao as applied to claim18 above, and further in view of US Patent 6,504,996 to Na (hereafter referenced as Na).

Regarding **claim 19,** Maeda meets all the limitations of the claim except ""the device, wherein said transport stream complies with an existing digital broadcast standard, the navigation data stream is loaded into said transport stream as a private data stream of the digital broadcast standard" Mao discloses (col.6, lines 60-64) that the head-end inserts navigation data using industry standard of the MPEG-2 protocol.

As to "acquiring means includes: a demultiplexer, for demultiplexing said transport stream and acquiring video data, audio data and navigation data of a program" Mao discloses (col.8, lines 37-45) that the receiver includes MPEG-2 demultiplexer that demultiplexes MPEG-2 stream into audio, video, and navigation stream as represented in Fig. 8 (element 808).

As to "video decoder, for decoding said video data and generating the video elementary stream" Mao discloses (col.8, lines 42-45) that the MPEG-2

demultiplexer provides audio/video stream to MPEG-2 decoder as represented in Fig. 8 (element 810).

As to "audio decoder, for decoding said audio data and generating the audio elementary stream" Mao discloses (col.8, lines 42-45) that the MPEG-2 demultiplexer provides audio/video stream to MPEG-2 decoder as represented in Fig. 8 (element 810). Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to demux audio/video stream as taught by Mao in order to divide streams and retrieve original streams.

Combination of Maeda and Mao meets all the limitations of the claim except "navigation data decoder, for decoding the navigation data and generating the navigation data stream." However, Na discloses (col.8, lines 40-43) that the navigation decoder decodes the navigation stream and provides a command to the video mixer as represented in Fig. 5 (element 450). Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to use navigation decoders to decode navigation data stream as taught by Na in order to split streams and retrieve original streams.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PINKAL CHOKSHI whose telephone number is (571) 270-3317. The examiner can normally be reached on Monday-Friday 8 - 5 pm (Alt. Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 571-272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pinkal Chokshi/
Examiner, Art Unit 2425

/Brian T. Pendleton/
Supervisory Patent Examiner, Art Unit 2425